

Remarks

Reconsideration of the present application, as amended, is respectfully requested.

Of previously pending claims 1-12, all were rejected. Independent claims 1 and 7 were rejected under 35 USC §103(a) as being obvious over U.S. Patent No. 6,137,603, which issued October 24, 200 to N. Henmi, in view of U.S. Patent No. 5,434,691, which issued July 18, 1995 to K. Yamane. Independent claims 1 and 7 have been amended to better point out the differences between the applicant's invention and the cited references. Dependent claims 2-6 and 8-12 were rejected under 35 USC §103(a) as being obvious over the cited Henmi patent in view of the cited Yamane patent and further in view of U.S. Patent No. 5,130,837, which issued July 14, 1992 to M. Kitamura *et al.* Dependent claims 2-6 and 8-12 have been amended to change the language of the claims to better reflect U.S. patent practice.

In rejecting the independent claims, the Examiner stated:

"Regarding claim 1, Henmi discloses an insertion node that functions like a receiver transponder to be used in an optical add and drop node connected in a two-fiber network (fig.1), characterized by first and second optoelectronic converters for converting received optical signals to electrical signals...each optoelectronic converter generating an output signal carrying light signal power information (inherent in the received signal) and a supervisory channel (e.g., the opto-electric of Henmi is clearly capable of this function), an electronic switch having two signal input terminals...."

In response to the applicant's previous amendment and accompanying arguments, the Examiner found that they were not persuasive. In particular, the Examiner noted that "any optical signal, when received, will inherently contain light signal power information by its mere presence. This is particularly true when one considers that the signal used in the system of Henmi is an intensity-modulated signal, wherein information is carried based on changes in the signal's intensity."

As amended, claim 1 recites, "...the first optoelectric converter... for receiving the light signals and for converting them to electric signals on a first output terminal and the second

optoelectric converter...for receiving the light signals and for converting them to electric signals on a second output terminal, each optoelectric converter generating an output signal carrying light signal power information and a supervisory channel on a monitor output terminal; and an electronic switch having two signal input terminals, a signal output terminal and a control input terminal, the two optoelectric converters connected with their first and second output terminals to the two signal input terminals of the electronic switch...". This should obviate the Examiner's concerns that the optical signal received by the applicant's claimed electronic switch necessarily receives an optical signal which contains light signal power information by its mere presence. The cited references do not show that each optoelectric converter generates an output signal carrying light signal power information and a supervisory channel on a monitor output terminal.

Hence claim 1 is patentably distinguishable over the cited prior art and should be allowable. Independent claim 7 has the similar language and should also be allowable. Dependent claims 2-6 and 8-12 should be allowable for at least being dependent upon allowable base claims.

Furthermore, at least some, if not all, of the dependent claims should be allowable in their own right. For example, claims 5 and 6 respectively recite:

5. A receiver transponder according to claim 2 further comprising a laser having an input terminal, the output terminal of the electronic reshaping circuit connected to the input terminal of the laser, the laser producing a light signal provided to a client layer.

6. A receiver transponder according to claim 2 wherein the output terminal of the electronic reshaping circuit is connected to an input terminal of a client layer.

In rejecting these claims, the Examiner reasoned, "Regarding claims 5, 6, 11, and 12, the combination of Henmi and Yamane discloses all the aspects as applied to claims 1 and 7 above, except fails to teach the output terminal fiber organizer the electronic reshaping circuit connected to the input terminal of the laser, the laser producing a light signal provided to a client layer. However, Kitamura (i.e., U.S. Patent No. 5,130,837 which issued July 14, 1992 to M. Kitamura *et al.*), from the same field of endeavor, teaches the output terminal of the regeneration circuit

(16, fig. 1) connected to the input terminal of the laser (LD, fig. 1 and col. 1, lines 58-61), the laser producing a light signal provided to a client layer (fig. 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the regeneration circuit 16 with the laser diode 17 of Kitamura having the input connecting to the output of the regeneration circuit into the combination of the Henmi and Yamane in order to provide the optical signals for transmission down the line."

In fact, the Kitamura patent does not teach, "the output terminal of the regeneration circuit (16, fig. 1) connected to the input terminal of the laser (LD, fig. 1 and col. 1, lines 58-61), the laser producing a light signal provided to a client layer (fig. 1)." As noted in the title of the cited patent, Kitamura *et al.* are concerned with optical repeaters and Fig. 1 illustrates a conventional optical repeater. Col. 1, lines 23-24. "[O]ptical repeaters are provided in an optical fiber cable at predetermined intervals so that the occurrence of a receipt error due to the length of the optical fiber cable can be prevented." Col. 1, lines 10-13. Optical repeaters should have no connections to a client layer. A perusal of Fig. 1 shows that in fact the regeneration circuits 16, 18 and LDs 17,19 are connected "down the line," i.e., to the fiber cable, and not to a client layer as recited in claims 5 and 6. The Examiner appears to recognize the difference in the connections between a receiver transponder, as the applicant claims, and an optical repeater, as the Kitamura patent describes, in the self-contradictory quoted portions in the paragraph above. First, Kitamura is claimed to teach that "'the output terminal of the regeneration circuit (16, fig. 1) connected to the input terminal of the laser (LD, fig. 1 and col. 1, lines 58-61), the laser producing a light signal provided to a client layer (fig. 1)," yet the last sentence of the paragraph states that "it would have been obvious... to incorporate the regeneration circuit 16 with the laser diode 17 of Kitamura having the input connecting to the output of the regeneration circuit into the combination of the Henmi and Yamane in order to provide the optical signals for transmission down the line (underlining added)." Even accepting the combination of the Kitamura patent with the Henmi and Yamane patents *arguendo*, it should be clear that the combination does not render claims 5 and 6 obvious. By the same arguments, neither should claims 11 and 12 be considered obvious.

Therefore, in view of the amendments above and the remarks directed thereto, the applicant respectfully requests that all rejections be withdrawn, that claims 1-12 be allowed and

the case be passed to issue. If a telephone conversation would in any way expedite the prosecution of this application, the Examiner is asked to call the undersigned at (408) 868-4088.

Respectfully submitted,

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